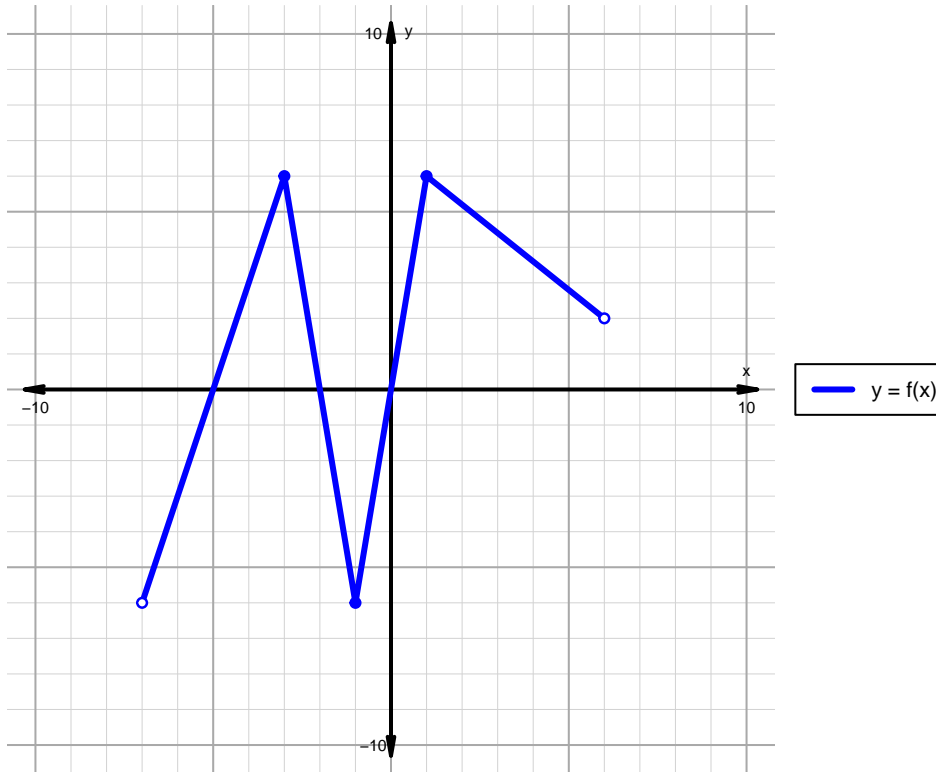


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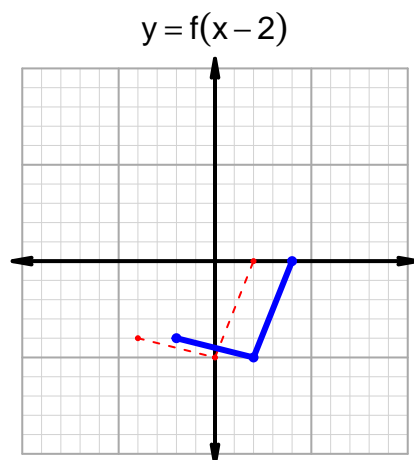
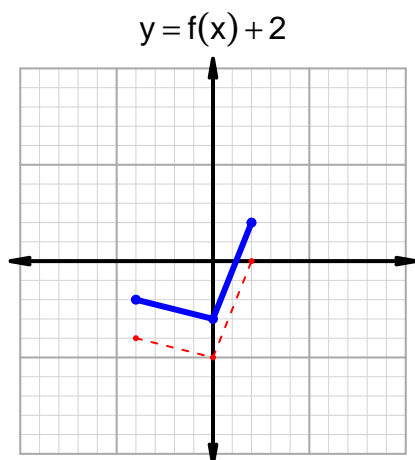
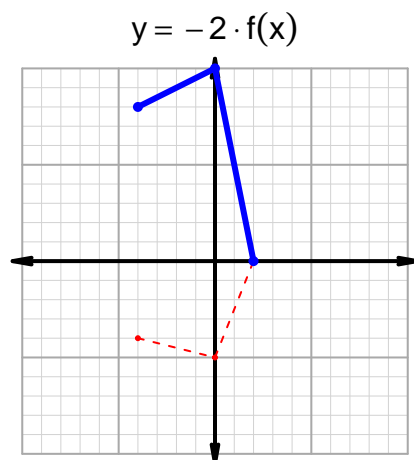
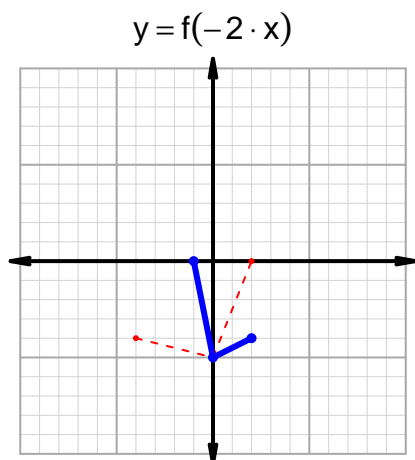
Intervals, Transformations, and Slope Solution (version 174)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-5, -2) \cup (0, 6)$
Negative	$(-7, -5) \cup (-2, 0)$
Increasing	$(-7, -3) \cup (-1, 1)$
Decreasing	$(-3, -1) \cup (1, 6)$
Domain	$(-7, 6)$
Range	$(-6, 6)$

Intervals, Transformations, and Slope Solution (version 174)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 81$ and $x_2 = 87$. Express your answer as a reduced fraction.

x	$g(x)$
47	81
50	87
81	50
87	47

$$\frac{g(87) - g(81)}{87 - 81} = \frac{47 - 50}{87 - 81} = \frac{-3}{6}$$

The greatest common factor of -3 and 6 is 3. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{-1}{2}$$